3: Ray E-5 (1928-35) 1936 Plateau

very often impossible to make any use of what might otherwise be valuable material because of the distortions and variations in the recording of native words.[1]

Further, I feel that it is methodologically preferable to handle separately data from field research and from historical sources unless they are distinctly supplementary one to the other or provide a check one upon the other. Important generalizations which might come from independent treatment are in danger of being lost by joint treatment in an attempt to reconcile apparent contradictions which are almost certain to be present in the two sets of data.

Finally, and to sum up, the object of this paper is to present a limited amount of reasonably complete and accurate source material of a usable nature, material which may be checked and supplemented in the field and from which tenable generalizations may be drawn.

II.

The physiographic province known as the Columbia Basin is the geographic unit which most nearly coincides with the cultural area here considered. The Basin is bounded on the west by the Cascade mountains, on the south by the Blue mountains, on the east and the north by relatively low lying extensions of the Rocky Mountains, particularly the Selkirk range and the Okanogan Highlands. The habitat of the northeasternmost peoples here treated extended for some distance into the Northern Rocky Mountain province.

Geologically the Columbia Basin is strikingly characterized by a succession of lava flows reaching a thickness of 4000 feet in some places. The Columbia river, which drains all of the Basin as well as large adjacent areas, has cut a huge canyon hundreds of feet deep through this bed of basalt. The bed further has been broken up by gorges cut by ancient streams and by the river at times when it temporarily was blocked from

[1] Such distortion is of course unavoidable without an adequate method of phonetic transcription. For reference to the method now in use see footnote 37.

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its main channel. These dry canyons, particularly characteristic of the northern part of the province, are known as coulees. The greatest of these, the Grand Coulee, was cut by the river when the Okanogan glacier filled the upper Columbia valley at the "Big Bend". In the southern half, beyond the extent of the glaciers, the lava plateau has been eroded gradually by such rivers as the Deschutes, John Day, Umatilla, and Yakima, leaving gently rounded hills of considerable altitude above the val-

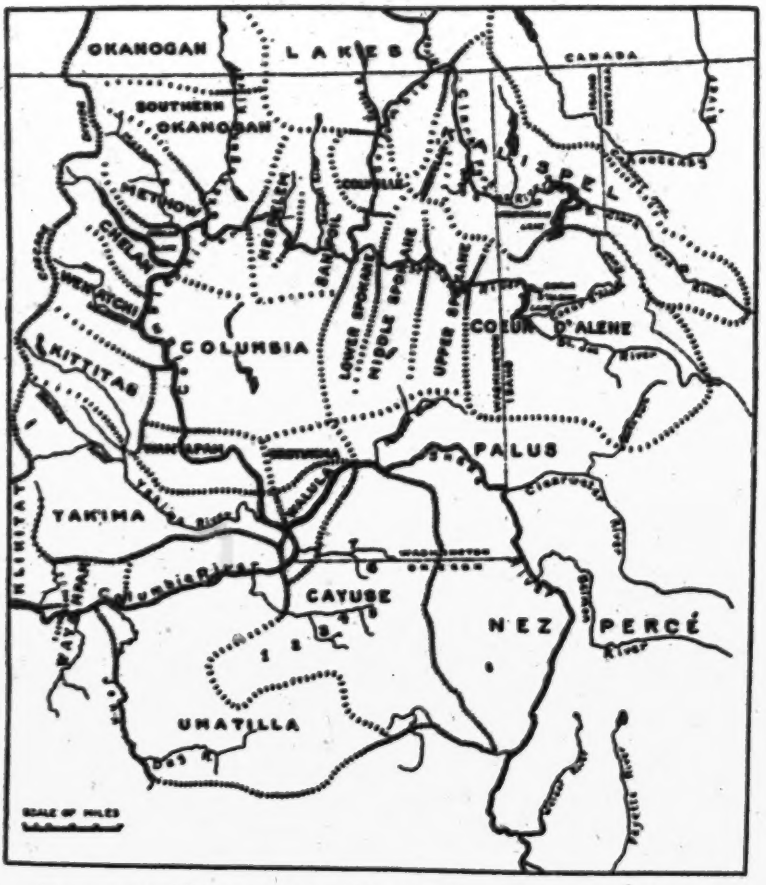

Figure 1. Native territorial distribution in the northern Plateau about 1850. (The numbers, indicating native villages and bands, are supplementary to the detailed maps following. See text.)

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ley floors. Eolian hills are common in this southern region as well, since the fine dry soil is easily carried by the strong constantly blowing winds. Also, the topography of the whole Columbia Basin has been modified further by minor uplifts since the lava was laid down.

The Okanogan Highlands in the northwestern portion of the area and the Selkirk range in the northeast are spurs of the Rocky mountains consisting largely of granitic and metamorphic formations. The mountains of the Highlands, 5000 and 6000 feet in elevation, have been gently rounded by glacial action and subsequent erosion. The Selkirks, which reach somewhat greater heights, are considerably more rugged and the valleys are narrower.

The Blue mountains in northeastern Oregon are composed chiefly of basalt with islands of older granite projecting. These granitic islands or steptoes are also found in southeastern Washington. The maximum elevation in the Blue mountains is about 6,000 feet.[8]

Meteorological data pertaining to the Basin is given in accompanying table (tab. 1).[9] It will be seen that great yearly temperature ranges together with low precipitation characterize the central or relatively low lying portion of the area, whereas the peripheral regions of greater altitude show a somewhat smaller temperature range and markedly greater precipitation. The geographical center of the area is hardly two hundred and fifty miles from the Pacific Ocean with its temperate moisture-laden winds but the Cascade mountains prove so effectual a barrier that the interior is little influenced. What little moisture is carried east of the Cascade divide is precipitated mostly on the eastern slope of the mountains. Thus the Kittitas villages on the upper Yakima river were subject to a yearly precipitation of about twenty-five inches whereas Wanapam villages near the mouth of the same river enjoyed but

[8] Edwin J. Saunders, "The Physical Geography of Washington," in *Journal of Geography*, XIV, 309-22; Nevin M. Fenneman, *Physiography of Western United States* (New York, 1931), 210-70.

[9] Information furnished by courtesy of Dr. Albert L. Seeman, Department of Geography, University of Washington.

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idarity under a single war chief during periods of hostility. Proceeding from the Umatilla to the Yakima and Wanapam and thence to the Columbia a gradual diminution in tribal emphasis is observed, with complete disappearance for some distance beyond that point. Illuminating is the former Yakima feeling of responsibility for the safety of any member of another group while he remained within Yakima territory. When the visitor was ready to leave he was given safe convoy to the Yakima boundary, Satus Pass, for example, beyond which he was upon his own responsibility. Also, scouts were stationed at many strategic points, in the interests of the group as a whole. The cementing effect of frequent warfare was to be seen in the organization of the Columbia[27] although this appears to have been a condition of no great age. The northernmost group of the Columbia Basin, the Lakes, exhibited quite a different type of political unity. A marked feeling of solidarity seems to have grown out of the uniqueness of their habitat. They occupied a series of interconnecting lakes and rivers over which they travelled in circuits,[28] making for a maximum of social intercourse and demanding considerable cooperation. Moreover, they were effectively shut off from adjacent groups on the west and north by high mountain ranges. Though conditions of this nature do not in themselves produce political unity, as Dr. Kroeber has pointed out,[29] yet they may prove significant factors in such a development. Among the Lakes this development appears to have occurred.

It is not argued here that village autonomy indicates the absence of any significant unit of larger compass than the village. The essential point is that under these circumstances the larger unit was ethnic or social in nature. Such a group often lacked even so much as a name to describe it. Thus the names Nespelem and Kittitas, for example, which we apply to ethnic groups, are derived from the political names of single villages;[30] in native use they had no such wide application. At other times

[27] Teit, "Middle Columbia Salish," 126.
[28] See map, fig. 2.
[29] Kroeber, 14.
[30] See Nespelem village no. 2, Kittitas no. 2.